Claims

What is claimed:

1. An insert for an insect control product comprising:

a) a first side and an oppositely facing second side;

b) a first portion;

c) a middle portion; and

d) a third portion, the middle portion connected to the first portion along a fold line and the third portion connected to the middle portion along a fold line.

2. An insert for an insect control product according to claim 1 further comprising a formula, the formula applied on a coated region of the first side and the formula applied on a coated region of the second side.

3. An insert for an insect control product according to claim 2 wherein the formula further comprises an insecticide.

4. The insert for an insect control product according to claim 2 wherein the coated region of the first side covers the middle portion and a coated part of the third portion.

5. The insert for an insect control product according to claim 2 wherein the coated region on the second side covers the middle portion and coated part of

the first portion.

6. The insert for an insect control product according to claim 1 wherein the insert is foldable along the fold lines into a folded insert comprising a Z-shaped configuration.

7. The insert for an insect control product according to claim 6 wherein after folding, the coated middle portion and the coated part of the third portion of the first side face one another.

8. The insert for an insect control product according to claim 6 wherein after folding, the coated middle portion and the coated part of the first portion of the second side face one another.

9. The insert for an insect control product according to claim 2 wherein the coated region of the first side covers the middle portion and a coated part of the third portion leaving a non-coated first portion, and wherein the coated region on the second side covers the middle portion and coated part of the first portion leaving a non-coated third portion, and wherein the non-coated portions of the first side and second side are for contacting an interior surface of a box into which the insert is placed.

10. The insert for an insect control product according to claim 1 wherein the first portion comprises first tabs and the third portion comprises second tabs,

the first and second tabs for being for being received in a conveyor.

11. A method of making an insert for a control product comprising the steps of:

a) providing a stamped insert comprising a first portion, a middle portion, and a third portion;

b) providing fold lines between the first portion and middle portion, and providing fold lines between the between the middle portion and the third portion;

c) providing a formula;

d) providing the insert with a first side and a second side; and

e) applying the formula on a coated region of the second side and drying the formula, and applying the formula on a coated region on the first side and drying the formula.

12. The method of making an insert for a control product according to claim 11 wherein the coated region on the second side of the insert comprises the middle portion and a portion of the first portion.

13. The method of making an insert for a control product according to claim 11 wherein the coated region on the first side comprises the middle portion and a portion of the third portion.

14. The method of making an insert for a control product according to claim 11 comprising the step of

folding the insert in upon itself along the fold lines so that the insert comprises a Z-shaped cross section.

15. The method of making an insert for a control product according to claim 11 comprising the steps of folding the coated middle portion and the coated part of the third portion of the first side towards one another, and folding the coated middle portion and the coated part of the first portion of the second side towards another, to provide the insert with a Z-shaped cross section.

16. The method of making an insert for a control product according to claim 11 comprising the further steps of providing first tabs extending from the first portion and providing second tabs extending from the third portion, and holding the inserts by the first tabs and second tabs.

17. A method of making an insect control product comprising the steps of:

a) stamping the insert from a paper blank comprising a first side and a second side;

b) stamping perforated fold lines in the blank between a first portion and a middle portion, and between the middle portion and a third portion;

c) transporting the insert to a first coating machine and coating a coated region of the second side with a formula;

d) flipping the insert so the second side goes from facing a downward direction to facing an

upward direction;

e) transporting the insert to a first drying tunnel and drying the formula on the coated region of the second side;

f) transporting the insert to a second coating machine and coating a coated region of the first side with formula;

g) flipping the insert so the first side goes from facing a downward direction to facing an upward direction;

h) transporting the insert to a second drying tunnel and drying the formula on the coated region of the first side of the insert;

i) transporting the insert to a folding machine for folding the insert along fold lines so the insert takes on a Z-shaped cross section; and

j) transporting the insert to an insertion machine and inserting the insert into a box to provide an insect control product.

18. A method of making an insect control product according to claim 17 comprising the further steps of and leaving a noncoated region on the second side of the insert, so that the coated region of the second side comprises all of the middle section and a portion of the third portion.

19. A method of making an insect control product according to claim 17 comprising the further steps of leaving a noncoated region on the first side, so that the coated region comprising all of the middle section

and a portion of the third portion.

20. The method for making an insert for an insect control product box according to claim 19 further comprising the steps of

a) providing the insect control product box with an interior side; and

b) wherein after the step of inserting the insert into the insect control product box only the noncoated regions of the insert contact the interior side of the insect control product box.

21. The method for making an insert for an insect control product box according to claim 19 further comprising the steps of:

a) providing an assembly line and conveyors for transporting the inserts; and

b) providing the insert with first tabs extending from the first portion, and providing the insert with second tabs extending from the third portion, the conveyor for holding the inserts by the first tabs and the second tabs so that the coated region of the first side and the coated region of the second side do not contact the assembly line.

22. The method for making an insert for an insect control product box according to claim 19 further comprising the steps of:

a) providing a vacuum in the folding machine to suction in any particles of insecticide that break off during the folding process; and

b) passing the drawn in particles through a bath so that the particles settle to the bottom of the bath.

23. The method for making an insert for an insect control product box according to claim 17 further comprising the steps of:

a) providing a carton insertion machine for moving the boxes into cartons;

b) transporting the carton to a film wrap and sealing machine;

c) wrapping film around the carton in the film wrap and sealing machine resulting in film cover cartons;

d) transporting the film covered carton on a conveyor and to a film shrink tunnel;

e) shrinking the film on the carton; and

f) transporting the film covered cartons to a dispatch conveyor.

24. A an insect control product comprising:

a) an insert comprising: a first side and an oppositely facing second side; a middle portion; a third portion, the middle portion connected to the first portion and the third portion along fold lines;

b) a formula, the formula applied on a coated region of the first side leaving a noncoated portion of the first side, and the formula applied on a coated region on the second side leaving a noncoated portion of the second side;

c) a box comprising an interior surface and

an exterior surface, the box defining a plurality of holes for insects to enter the box; and

d) the insert folded to comprise a Z-shaped cross section, and the insert positioned in the box such that only the noncoated portion of the first side and the noncoated portion of the second side contact the interior surface of the box.

25. The insect control product according to claim 19 in which the coated region of the first side covers the middle portion and a coated part of the third portion, and in which the coated region on the second side covers the middle portion and a coated part of the first portion.

26. The insect control product according to claim 24 wherein the formula comprises an insecticide.

27. An assembly line for assembling inserts and housings into insect control products comprising:

a) the insert comprising a first side and a second side, and a first portion and middle portion connected along fold lines, and a third portion connected to the middle portion along fold lines;

b) a first feed mechanism for feeding an insert to a first coating machine by a conveyor, the first coating machine for coating a coated region of the second side of the insert, which faces in a downward direction, with a formula;

c) a conveyor for moving the insert to a first flip mechanism for flipping the insert so the

coated region of the second side of the insert faces in an upward direction;

d) a conveyor for moving the insert to a first drying tunnel for drying the formula on the second side of the insert;

e) a conveyor for moving the insert to a second coating machine for coating a coated region of the first side of the insert, which faces in a downward direction, with formula;

f) a conveyor for moving the insert to a second flip mechanism for flipping the insert so the coated region of the first side of the insert faces in an upward direction; and

g) a conveyor for moving the insert to a second drying tunnel for drying the formula on the first side of the insert.

28. An assembly line for assembling inserts and housings into insect control products according to claim 27 further comprising:

a) a conveyor for moving the insert to a folding machine for folding the insert along the fold lines into a Z-shaped configuration, so that the insert may be received in a housing.

b) a conveyor for moving the insert to an insertion machine for taking the folded insert and placing it in the box and completing assembly of the insect control product;

c) a conveyor for moving the insert control product to a carton insertion machine for moving a plurality of insect control products into a carton; and

d) a conveyor for moving the carton to a film wrap and sealing machine for wrapping the cartons in a shrink wrap, and a conveyor for moving the cartons to a film shrink tunnel for shrinking the wrap tightly on the cartons.

29. An assembly line for assembling insect control products according to claim 27 further comprising a particle recovery system for removing particles of formula from the folding machine.

30. An assembly line for assembling insect control products according to claim 27 wherein the first and second coating machines each further comprise a first cylinder positioned above a second cylinder, the first and second cylinders for spinning and drawing the insert between them, and wherein the second cylinder comprises a rectangular area for applying formula to the insert passing over the second cylinder.